

CITY OF SHREVEPORT

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WHAT FACTORS ARE CONSIDERED BEFORE INSTALLING TRAFFIC SIGNALS?

Properly designed and operated traffic signals are valuable devices for controlling the assignment of right-of-way at intersections justifying this type of control. Unfortunately, traffic signals are also viewed by many persons as a solution to any traffic problem and a preventative for vehicle or pedestrian accidents.

Traffic signals do not always reduce or prevent accidents and are not always an asset to traffic control. In some instances, the number of accidents and injuries increase after signals are installed. Usually in such cases the right angle collisions are reduced but the total number of collisions, especially rear-end or turning type accidents, may stay the same or increase.

When can a traffic signal be an asset instead of a liability to safety? In order to answer this, traffic engineers have to ask and answer a series of questions:

- 1. Are there so many vehicles on both streets that signal controls are necessary to assign the right-of-way or relieve congestion?
- 2. Is the traffic on the main street so consistently heavy that drivers on the side street must try to cross when it is unsafe?
- 3. Are there so many pedestrians trying to cross a busy main street that confusing, congested, or hazardous conditions result?
- 4. Are there so many school aged children trying to cross the street at the same times that they need special controls for their supervision or protection? If so, is a signal the best solution?
- 5. Are signals at this location going to help drivers maintain a uniform pace along the major street without being stopped unnecessarily?
- 6. Does the collision history indicate that a signal will reduce the probability of driver actions which cause collision?
- 7. Is the character of the minor street such that additional traffic attracted by the existence of a signal, desirable to the adjacent neighborhood?
- 8. Is there a combination of the above conditions and factors which indicates that a traffic signal will result in improvement rather than a detriment?

To aid in answering these questions, engineers compare the existing facts and conditions to nationally accepted minimum guidelines. These guidelines (called 'warrants') were established using observations throughout the country over many years. Where the established guidelines are met, traffic signals generally operate effectively and safety is improved. When the guidelines are not met, additional hazards result. Unnecessary traffic signals increase congestion, waste tax money, and breed disrespect for other forms of traffic control. More importantly, however, signals in the wrong locations fail to provide safety and protection to anyone.